# Warren County Health Profile



State of Mississippi Mississippi State Department of Health Office of Science

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# Mississippi State Department of Health Office of Science

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# Introduction

The Mississippi State Department of Health's mission is to promote and protect the health of the citizens of Mississippi. The Mississippi State Department of Health strives for excellence in government, cultural competence in the carrying out of our mission, and to seek local solutions to local problems.

This report is intended to be a general overview of health status for a specific County. Since health status and health needs vary by sex, age, and race, we are starting with a population snapshot of the County to show how it compares with the State as a whole.

Throughout this Profile, each chart is clearly labeled regarding health factors which were measured for that chart. Data was utilized from statistical reports from the Mississippi State Department of Health, the Mississippi Data Center, and the U.S. Census.

For most charts, we provide a basis for comparison. Sometimes it is how a health measure has changed over time, sometimes it is a comparison of the County to the State, or to the Nation.

The most difficult aspect of preparing this Profile was trying to address racial and ethnic sensitivities. Our largest minority group is that commonly referred to as "Black" or "African American." In the reports which have been collected by Vital Statistics for years, the traditional nomenclature was "Non-White" and we have followed that tradition in our labels.

For most of the health indices reported in this County Profile, Non-White rates are considerably worse than White rates. This same trend is seen across Mississippi and the United States. We believe that this reflects lower average levels of personal income and educational attainment in the Non-White community, as compared to the White community.

Until the social and economic inequities between Whites and Blacks can be addressed, many of the gaps between Whites and Non-Whites in illness and death rates can be substantially reduced through the provision of public health, medical, and social services.

Mississippi County Health Reports are available on the Department of Health Website at: http://www.msdh.state.ms.us/County.

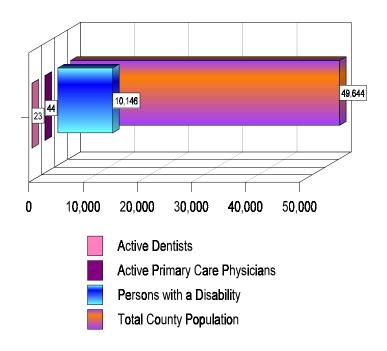
# County Demographic Distribution

The availability and accessibility of health care services is essential to meet the needs of the state's population. Sixty-four of Mississippi's 82 counties are designated as health professional shortage areas, not including Warren County<sup>1</sup>. This is based on the desired ratio of one primary care provider for 3500 population.

Warren County Total Population = 49,644

**Projected Population 2005 =52,243**<sup>2</sup>

#### Warren County



In FY 2002, Warren County had 44 Primary Care Physicians and 23 dentists.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup>The US Dept. of Health and Human Services defines a health professional shortage area as a geographic area encompassing 30 minutes travel time and containing at least 3,500 persons per primary care physician. MS State Health Plan FY2003, p. V-2.

<sup>&</sup>lt;sup>2</sup>US Census 2000 and MS Population Projections, MS Institutions of Higher Learning, Sept. 1998.

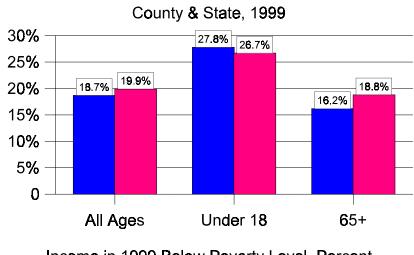
<sup>&</sup>lt;sup>3</sup>MSDH State Health Plan FY2003.

# Income and Poverty

Warren County, 1999

In Mississippi as a whole, 19.9% of the population, of all ages, had income in 1999 below poverty level. By comparison, in Warren County 18.7% of the population, of all ages, had income in 1999 below poverty level.

#### Percent of Population in Poverty



Income in 1999 Below Poverty Level, Percent

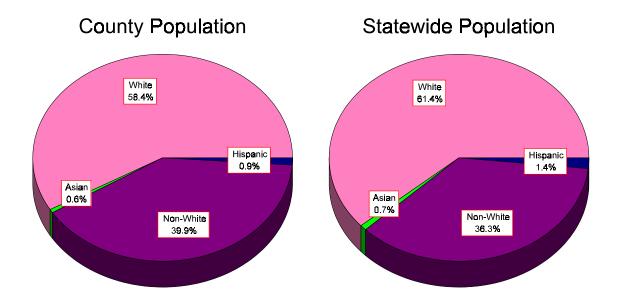
County State

Warren

County has a comparable percentage of population in poverty as is seen Statewide, except for the population over the age of 65, where a slightly lower percentage of population in Warren County lives in poverty than Statewide.

Source: US Census, 2000

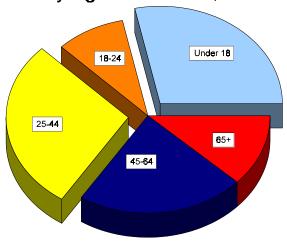
# **Racial Distribution**

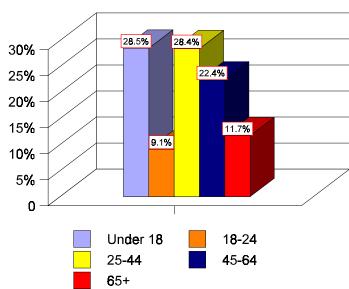


Warren County's racial distribution is comparable to Statewide.

Source: U.S. Census 2000

#### County Age Distribution, Percent





County population shows a

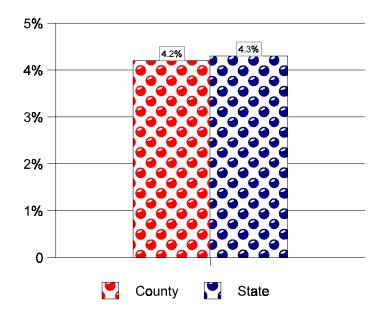
predominance of two age groups: those under age 18 and those aged 25-44. Warren County's 28.5% of population under 18 years of age is comparable to the Statewide 27.3% and Nationwide 25.6% under age 18.

Source: U.S.Census 2000

#### Workforce

As of 2000, Warren County had 4.2% unemployment. Statewide in 2000, 4.3% of the workforce was unemployed.

#### County and State Unemployed, 2000



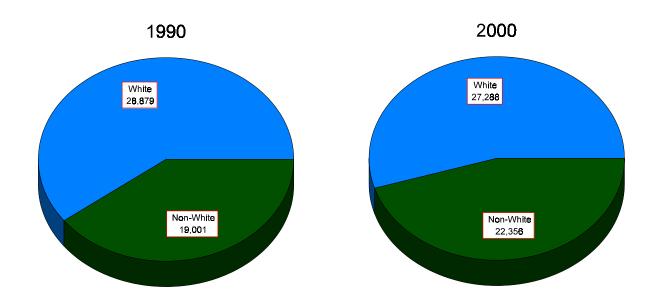
County residents who are employed will typically have improved opportunities to access health care through employer-supported health plans. Those residents who are not employed will have greater needs for Public Health services.

Warren County had a slightly lower percent of unemployment than Statewide in 2000.

Source: U.S. Census 2000

# County Racial Change, 1990 - 2000

The total Warren County population increased 3.7% in the decade of 1990 - 2000, from 47,880 in 1990 to 49,644 in 2000. The percent change was -5.5% White, +17.6% Non-White.

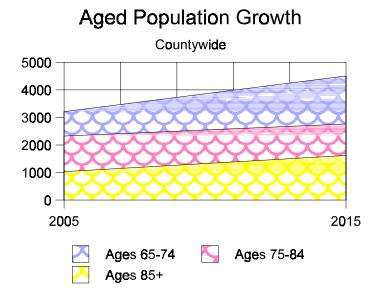


Warren County total population increased during the last decade, with Non-White population growth increasing and White population decreasing.

Source: Vital Statistics Mississippi 2000, MSDH

# Projections for Population Over 64 Years of Age

As people get older, their risk for disease and debilitating chronic conditions increase, as well as their need for more medical care. This trend becomes noticeable at about age 65 and directly increases with age.



As the population ages, the need for hospital, nursing home and chronic illness care increases. In addition, as age increases a dramatic increase in the need for home health and case management services, especially for persons over the age of 85 who live in their own homes, is also observed.

The number of Warren County population over age 65 will show a steady increase.

Source: Center for Policy Research & Planning, Mississippi Institutions of Higher Learning

#### County Nursing Home Beds, Projection (2005)

There are 411 licensed nursing home beds in the County. The projected need for 2005 is for 358 beds. The MSDH uses population projections prepared by the Center for Policy Research and Planning of the Institutions of Higher Learning to calculate bed need. The need for nursing home care beds is established at:

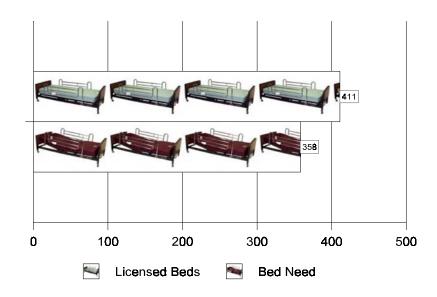
0.5 beds per 1,000 population aged 64 and under

14 beds per 1,000 population aged 65-74

59 beds per 1,000 population aged 75-84

179 beds per 1,000 population aged 85 and older

#### Warren County Nursing Home Bed Need, 2005



In Warren County, an increase in the number of people 80 years of age and older is projected. This expectation indicates a greater need for elderly health care services, including nursing home facilities.

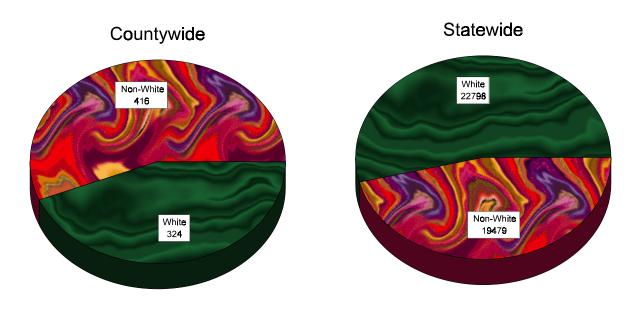
Under current population projections, Warren County will have sufficient nursing home beds to accommodate elderly County residents.

Source: MSDH State Health Plan 2003

# Maternal and Child Health Indicators Pregnancy, Infancy and Infant Mortality

Pregnancy and infancy are periods of rapid growth and development, and high vulnerability. This is the period when a small investment in preventive services can pay the greatest dividends concerning preventing illness, disability and premature death. For these reasons, infant mortality has become the measure used to compare states and nations in terms of the quality of life and access to the most basic of health-related services.

#### Live Births by Race, Number of Births, 2001

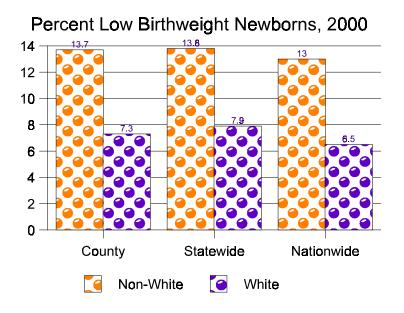


There were 740 total live births in Warren County for the year 2001. The rate per 1,000 live births for the County was 11.9 White, 18.6 Non-White, compared to the State rate of 13.0 White and 17.7 Non-White.

When compared to the State, Warren County had slightly lower rates of White births and slightly higher rates of Non-White live births in 2001.

# Percent Low Birthweight Newborns

A low birthweight baby is one that weighs less than five and a half pounds (2,500 grams) at birth. These babies have more illnesses and higher death rates. Low birthweight can be due to teenage mothers, poor nutritional status of the mother, prematurity, maternal or infant illness, maternal exposure to tobacco smoke, alcohol, drugs, or other causes. Adolescents, women over 35, women with pregnancies spaced too close together, and those that do not receive adequate prenatal care are all at high risk of having a low birthweight infant.

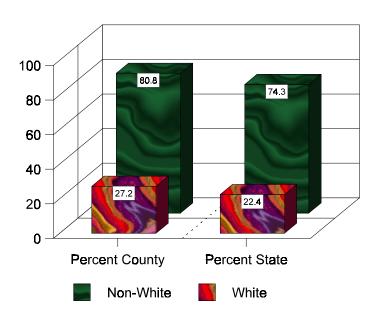


The risk of dying during the first year of life for low-birthweight babies is 24 times that for babies of normal birthweight. The high rate among African Americans of low-birthweight babies has been explained by factors such as geographic isolation (people who are unable to access support services easily) and lack of health insurance.

In Warren County, the percent of both White and Non-White low birthweight newborns is comparable to Statewide percentages.

Source: CDC National Vital Statistics Report 2002 and Vital Statistics 2000, MSDH

# Births to Unmarried Mothers Percent of Total Live Births, 2001



In Warren County, 80.8% of all Non-White births are to unmarried mothers; 27.2% of all White births are to unmarried mothers. These percentages are slightly higher than Statewide.

Children of unmarried mothers are substantially less likely to graduate from high school than the children of married mothers, regardless of the mother's age at the time of birth<sup>4</sup>. Children who grow up with married parents generally enjoy a higher standard of living than those living in single-parent households<sup>5</sup>.

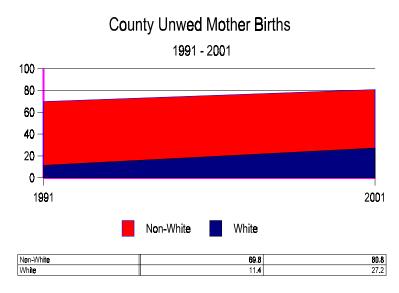
Chart Source: Vital Statistics Mississippi 2001, MSDH

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<sup>&</sup>lt;sup>4</sup>Out of Wedlock: Causes and Consequences of Nonmarital Fertility, ed. Lawrence L. Wu and Barbara Wolfe [New York: Russell Sage Foundation, 2001], pp. 287-316.

<sup>&</sup>lt;sup>5</sup>Marriage, Poverty, and Public Policy: A Discussion Paper from the Council on Contemporary Families. Prepared for the Fifth Annual CCF Conference, April 26, 2002. Stephanie Coontz and Nancy Folbre.

#### Percent Change, 1991 - 2001 Unmarried Mother Live Births



Percent of Total Live Births

Out-of-wedlock childbearing has risen dramatically nationwide, from 5.3% of all births in 1960 to 33% of all births in 1999. The percent of births to unmarried mothers in Mississippi statewide is 22.4% among Whites and 74.3% among Non-Whites.

The percentage of births to unmarried mothers in Warren County increased for both Whites and Non-Whites from 1991 to 2001<sup>7</sup>

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<sup>&</sup>lt;sup>6</sup>National Center for Health Statistics, <u>National Vital Statistics Reports</u>, vol. 48, no.16, Oct. 18, 2000.

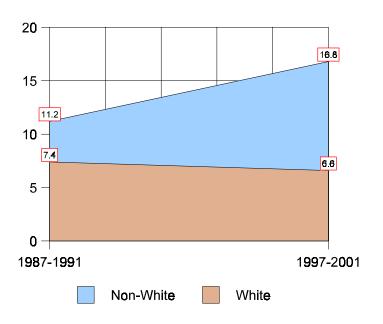
<sup>&</sup>lt;sup>7</sup>Mississippi Health Futures County Data Book, MSDH, 1993; and Vital Statistics 2001, MSDH.

### **Infant Mortality**

Infant mortality reflects deaths in the first year of life, and is measured using the infant mortality rate. Infant mortality rate is measured as the proportion of deaths in the first year of life in every 1,000 live births.

Having babies when the mother is too young or too old, having them too closely together, poor maternal health or poor nutrition all increase the risk of infant death. Chemical toxins such as alcohol, drugs and tobacco smoke also increase the risk. After the first month of life, poor infant nutrition, poor hygiene and infectious diseases all increase risk.

#### Warren County Infant Mortality Rate, 1987 - 2001



Rate per 1,000 Births, Infants aged less than one year.

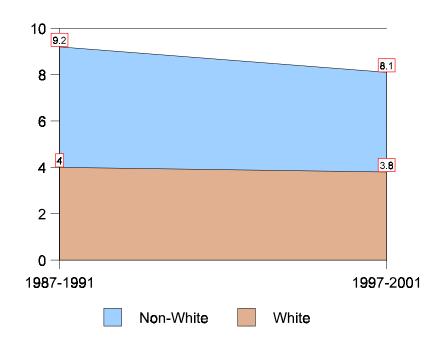
In Warren County, the infant mortality rate for Non-Whites has increased during the last decade. For Whites, the rate has shown a slight decrease during that time period.

The rate of Non-White infant mortality has increased in Warren County over the last ten years.

# **Neonatal Mortality**

Neonatal mortality represents infant deaths in the first 28 days of life. Deaths during this time are generally due to causes affecting the mother before and during pregnancy. Neonatal mortality rate is measured as the proportion of deaths in the first 28 days of life in every 1,000 live births.

#### Warren County Neonatal Mortality Rate 1987 - 2001



Rate per 1,000 Live Births, Warren County

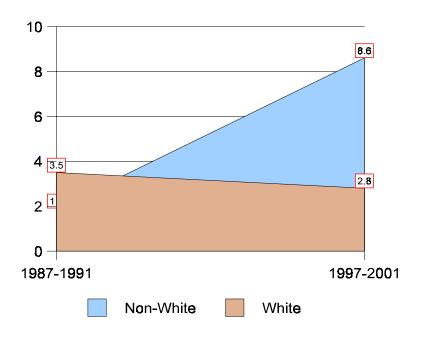
The Warren County Neonatal mortality rate has decreased slightly for both Whites and Non-Whites over the past ten years.

Source: MSDH Vital Statistics

### Postneonatal Mortality

Postneonatal Mortality is measured as the proportion of deaths among infants aged 28 days to one year in every 1,000 live births. The Postneonatal mortality rate is an important measure of health, because nearly half of these deaths are caused by preventable causes such as SIDS, infections, and injuries. With education and health care interventions, postneonatal mortality rates can be reduced and the racial gap in these deaths can be narrowed.

#### Warren County Postneonatal Mortality Rate, 1987 - 2001



Rate per 1,000 Live Births

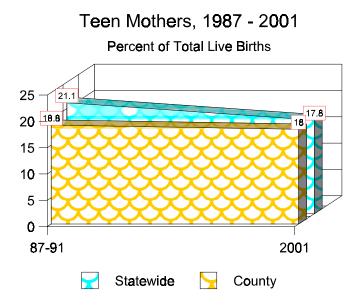
For Non-Whites in Warren County, the postneonatal mortality rate has shown a sharp increase, from a rate of 1.9 per 1,000 live births during 1987-91 to 8.6 per 1,000 during 1997-2001. Among Whites, postneonatal mortality has decreased from 3.5 per 1,000 live births during 1987-1991 to a rate of 2.8 in 1997-2001.

The Postneonatal Mortality rate in Warren County has sharply increased for Non-Whites over the past decade.

Source: MSDH Vital Statistics

#### Births to Teenage Mothers 1987 - 2001

**Mississippi has the highest rate in the nation of births to teens.** Teen mothers are more likely to drop out of school, require long-term financial support, and be involved in child abuse. Unplanned pregnancies account for a majority of the births among women with family incomes below the poverty level.<sup>8</sup>



MSDH Vital Statistics 2001

Births to teenage mothers in Warren County have remained at a constant percentage in Warren County over the past ten years, and are comparable to Statewide percentages.

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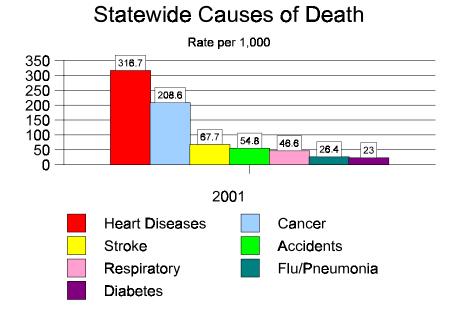
<sup>&</sup>lt;sup>8</sup> MSDH Strategic Plan 2003 - 2007

#### Illness and Death

Many premature deaths can be prevented, allowing the person to have more productive years of life. The majority of deaths result from heart disease, cancer, stroke and injury.

By looking at the numbers of deaths, the age, sex and race adjusted rates, and the years of potential life lost by premature deaths, much can be learned about the health of a community. Deaths during childhood, adolescence and young adulthood especially reflect community health.

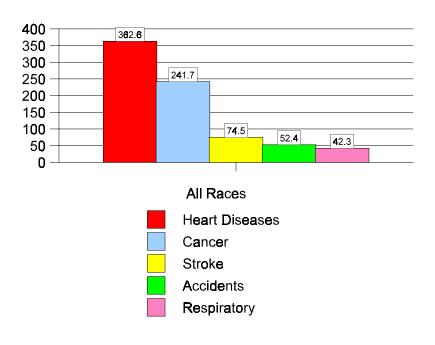
This section of the County Health Profile addresses those causes of death that are most common and most preventable.



Statewide, the leading causes of death are heart disease, cancer, stroke and accidents.

#### Causes of Death, All Races

#### Causes of Death, Warren County, 2001



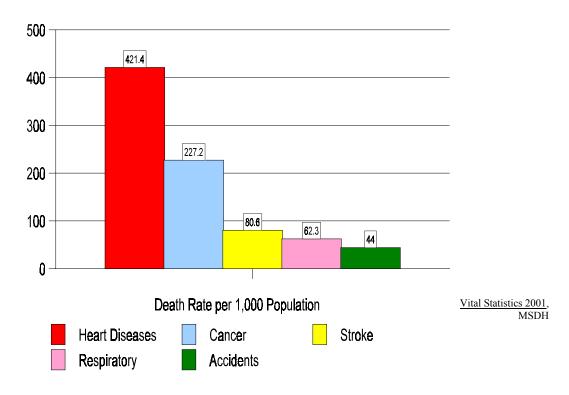
Rate per 1,000 population.

Source: MSDH Vital Statistics, 2001

The leading cause of death in Warren County for all races is Heart Disease, followed by Malignant Neoplasms (Cancer), Cerebrovascular Disease (Stroke), Accidents, and Emphysema and other Lower Respiratory Diseases.

The leading cause of death in Warren County is Heart Disease.

# Causes of Death, Warren County White Population, 2001



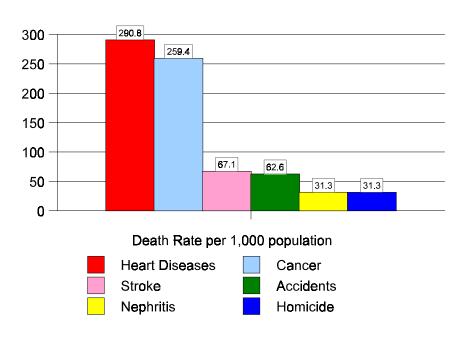
Smoking is the single most important modifiable risk factor for cardiovascular disease and coronary heart disease. Approximately 24% of adult Mississipians are smokers. Although this percentage has decreased since the 1940's when 50-60% of all adults smoked, there have not been decreases in the percentage of current smokers in Mississippi since 1990.

In Warren County, the highest rate of death for Whites is from heart disease.

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<sup>&</sup>lt;sup>9</sup>Penman AD, Johnson D. The 2000 Mississippi State of the Heart Report. MSDH and the American Heart Association, Southeast Affiliate, March 2000.

### Causes of Death, Warren County Non-White Population, 2001



Mortality Rate per 1,000 population Source: Vital Statistics 2001, MSDH

In Warren County in 2001, the highest rate of death for Non-Whites was from Heart Disease, followed by Malignant Neoplasms (Cancer), Cerebrovascular Disease (Stroke), and by Accidents and Homicide.

For reasons that are not understood, Non-Whites have about a 33% higher death rate for all cancers than Whites, according to the American Cancer Society. Additionally, Non-Whites have a higher rate of death due to injury. Both these higher rates are seen in Warren County.

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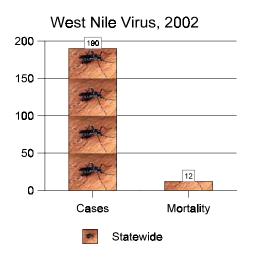
<sup>&</sup>lt;sup>10</sup>Cancer Facts & Figures 2002, American Cancer Society, 2002.

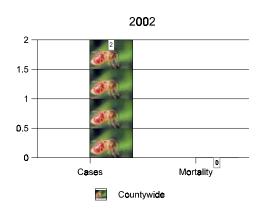
<sup>&</sup>lt;sup>11</sup>Differences in Death Rates due to Injury Among Blacks and Whites, 1984. Jama A. Gulaid, Chukwudi Onwuachi-Saunders, CDC, MMWR, Surveillance Summaries, July 01, 1988/37 (SS-3); 25-31.

#### West Nile Virus

West Nile virus is spread by the bite of an infected mosquito, and can infect people, horses, and many types of birds. Most people who become infected with West Nile Virus will have either no symptoms or only mild ones. However, West Nile Virus infection can result in severe and sometimes fatal illnesses.

#### State and County Human Cases and Mortality



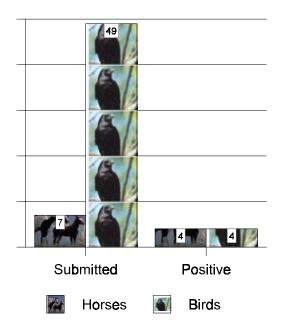


In Mississippi in 2002, there were 190 human cases with 12 mortality from West Nile Virus. In Warren County, there were 50 human cases submitted for testing, 2 human cases and no human mortality in 2002.

# West Nile Virus Warren County, 2002

Since the original 1999 outbreak in New York City, the finding of dead birds that test positive for West Nile Virus has always been a precursor to human cases of the virus. Testing dead birds is the best early detection method for the presence of the virus in the area. Horses are also tested, since approximately 40% of equine West Nile Virus cases result in the death of the horse.

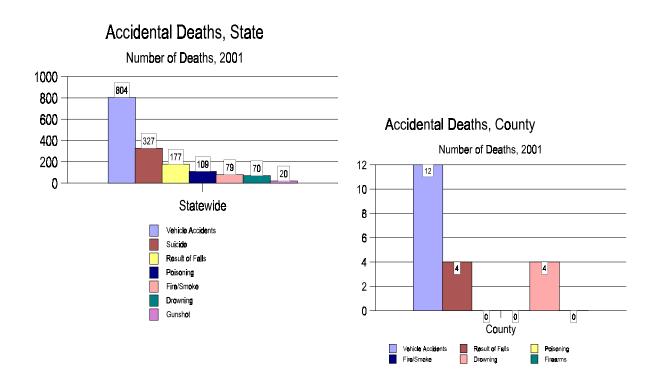
#### **Warren County Bird and Horse West Nile Virus**



In Warren County in 2002, there were 7 horses submitted for West Nile Virus testing and of those, 4 horses were positive.

There were 102 reports of dead birds in 2002 in Warren County and 49 birds submitted for testing. Of those, 4 birds tested positive for West Nile Virus.

# Injuries Accidental Deaths, State and County

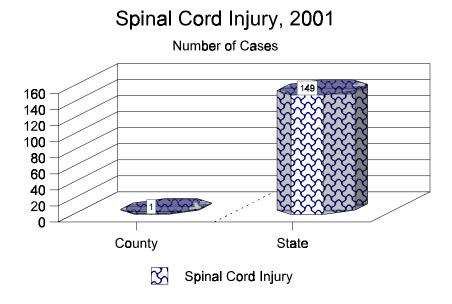


In Warren County in 2001, 26 accidental deaths were reported. Motor Vehicle Accidents caused the highest mortality in the County.

# **Spinal Cord Injuries**

#### Statewide and Countywide, 2001

Spinal Cord Injuries have a profound effect on the future of Mississippians, since they often remove an individual from study and work during their most productive ages. These injuries cause many people to need state support for the remainder of their lives.



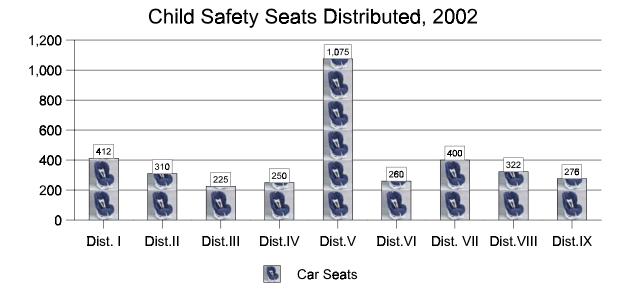
The leading causes of spinal cord injury vary by age. Among persons under age 65, motor vehicle crashes are the leading cause. Among persons over 65, most spinal cord injuries are caused by falls.

In 2001, Warren County had one case of spinal cord injury; since 1992 Warren County has had 33 spinal cord injuries.

# **Injury Prevention**

Injuries are the single greatest cause of mortality in Mississippi for persons between the ages of 1 and 44. Mississippi's mortality rate from injuries is the second highest in the nation. The Injury Prevention Program manages activities aimed at reducing injuries by coordinating the MSDH child safety seat program and other injury prevention efforts including bicycle safety projects and fire prevention projects.

In 2002, a total of 3,530 child safety seats were purchased by the MSDH and distributed statewide. Child passenger safety packets were distributed along with the car seats.



In Public Health District V, which includes Warren County, 1,075 car seats were purchased and distributed by the MSDH in 2002.

#### School Health Nurses for a Tobacco-Free Mississippi

The School Health Nurses for a Tobacco-Free Mississippi program places school nurses into Mississippi's public school system whose major job function, other than their normal day-to-day nursing duties, is to teach Mississippi school age children the dangers of tobacco use.

During the 2000 - 2001 school year, nurses in the tobacco program conducted activities aimed at reducing or preventing youth tobacco use for 44,250 students in Mississippi.



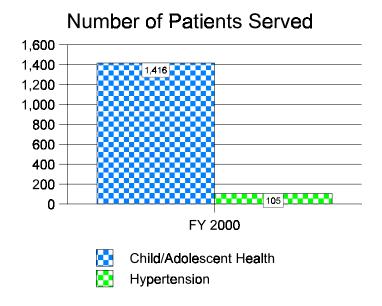
Currently, the Partnership for a Healthy Mississippi funds 51 school districts statewide with the tobacco prevention program. Warren County has a Tobacco School Nurse program.

Students exposed to the School Nurses for a Tobacco-Free Mississippi program were significantly more likely to know tobacco can hurt and kill; that cigarettes contain drugs; that tobacco causes cancer and heart disease; and that second-hand smoke is dangerous<sup>12</sup>.

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<sup>&</sup>lt;sup>12</sup>Mississippi Youth Tobacco Survey 2000, MSDH.

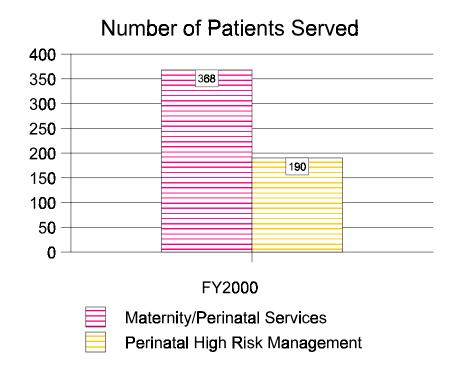
Patients Served by MSDH, Warren County, 2000



The Child and Adolescent Health Program provides childhood immunizations, well child assessments, limited sick child care, and tracking of high-risk children. Services are provided via a multidisciplinary team including medical, nursing, nutrition, and social work. Through local county health departments, the MSDH offers hypertension screening, diagnosis, treatment, and follow-up services.

In Warren County in 2000, 1,416 patients were served by the Child/Adolescent Health program and 105 patients were served by the Hypertension program.

Patients Served by MSDH, Warren County, 2000

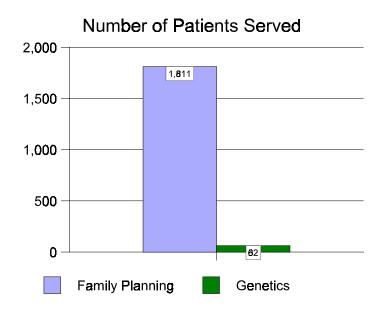


**Maternity services** are provided by the Department of Health statewide to more than 12,400 women through County Health Departments, targeting low-income pregnant women.

The Perinatal High Risk Management/Infant Services System program is designed to reduce low birth weight and infant mortality through a multidisciplinary, family-oriented, risk reduction program that provides an array of supplemental services including nutrition and counseling.

In 2000, 368 Maternity patients and 190 Perinatal High Risk Management patients were served by the MSDH in Warren County.

Patients Served by MSDH, Warren County, 2000

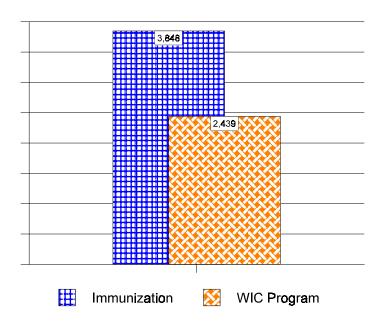


Mississippi leads the nation in births to teens. **The Family Planning Program** seeks to provide counseling, medical examination, education, and contraceptives for teenagers at risk and low-income women to allow individuals to prevent unplanned pregnancies and to space children.

**The Genetics Program** provides screening, diagnosis, counseling, and follow-up for a range of genetic disorders and has developed comprehensive genetic services statewide. The Genetics Program also collects data for the birth defects registry.

In Warren County, the Genetics program provided service to 62 patients and the Family Planning Program provided service to 1,811 patients in 2000.

#### Number of Patients Served, Warren County, 2000



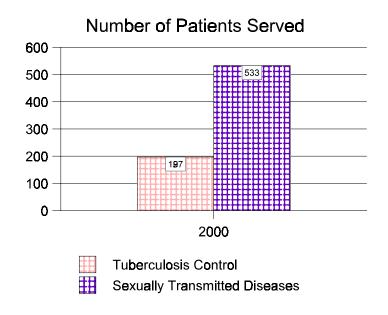
#### Vaccines are among

the safest and most effective measures for the prevention of infectious and communicable diseases. The Division of Immunization provides services designed to limit illness and death due to childhood vaccine-preventable diseases.

The Supplemental Food Program for Women, Infants, and Children (WIC) provides health screening, certification, and nutrition education to pregnant, breast-feeding, and postpartum women, infants, and children who qualify. Monthly food packages are distributed directly to participants through 93 distribution centers located in every county in the state.

In 2000, the Immunization Program served 3,848 patients and the WIC program served 2,439 patients in Warren County.

#### Public Health Services to the County Number of Patients Served, Warren County, 2000



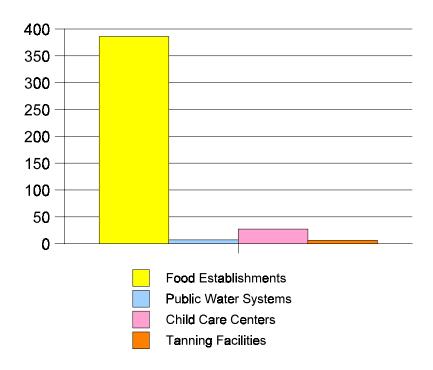
There were 154 new cases of tuberculosis (TB) reported in Mississippi during 2001. The TB program provides early and rapid detection of persons with or at risk of developing TB; treatment and follow-up of diagnosed cases; preventive therapy to persons at risk of developing TB; and technical assistance to public and private agencies and institutions, particularly hospitals, nursing homes, mental institutions, and penal institutions.

Sexually Transmitted Diseases (STDs) are infections spread from one person to another person during sexual contact. The goal of the STD control program is the reduction and practical management of STD in Mississippi.

During the year 2000, the Tuberculosis Control Program served 197 persons in Warren County, and the STD program served 533 persons in the County.

# **Environmental Health Services**

Number of Inspections, Warren County, 2000



Health Protection for the people of Mississippi is one of the chief responsibilities of the Mississippi State Department of Health. From the quality of our food and water, to child care and professional licensing, our concerns embrace every aspect of life across the state. Our goal is to achieve and maintain the highest standard of health for all Mississippians.

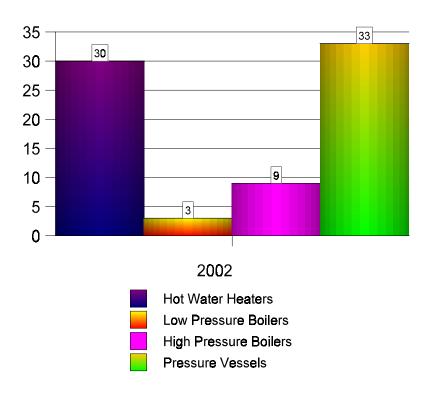
In 2000, 386 Food Establishments, 7 Public Water Systems, 6 Tanning Facilities and 27 Child Care Centers in Warren County were inspected by the Department of Health.

# **Boiler and Pressure Vessel Safety**

Citizens and their properties, both public and private, are endangered by unsafe boiler and pressure vessels. Explosions have caused fatalities and considerable property damage. Tanks storing compressed air are the objects most frequently involved in such explosions.

The Boiler and Pressure Vessel Safety Branch conducts inspections and certifies the use of all boilers and pressure vessels covered by law. Violations were found in state-owned buildings, schools, hospitals, nursing homes and small businesses.

#### Warren County, Number of Inspections, 2002

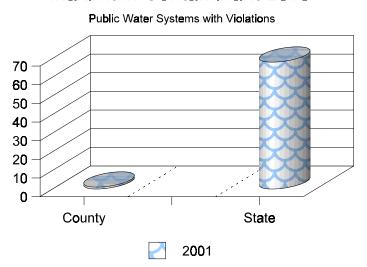


In 2002, the Boiler and Pressure Vessel Safety Program inspected a total of 75 boilers, pressure vessels and heaters in Warren County on either an annual or biennial basis.

### **Public Water Supply**

Public water supplies provide drinking water to 96% of the state's citizens. The Public Water Supply Program monitors drinking water quality, follows-up and resolves water quality violations and works toward the goal of ensuring public water supplies comply with all Safe Drinking Water Act water quality standards.

#### Maximum Contaminant Level



The Environmental Protection Agency sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels. During 2001, 68 Public Water Supplies incurred Maximum Contaminant Level (MCL) violations statewide.

One public water supply in Warren County incurred MCL violations in 2001.